**S4 Table.** Bacterial strains used in this study.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Bacterial strain** | **# 16S rRNA copies** | **Culturing condition** | **Strain source** | **Place of origin** |
| *Gilliamella apicola*  wkB1T | 4 | BHIA, 35°C,  microaerophilic | Kwong et al, 2012 | New Haven, USA |
| *Gilliamella apicola* ESL0169 | 4 | BHIA, 35°C,  microaerophilic | This study | Lausanne, Switzerland |
| *Gilliamella apicola* ESL0182 | 4 | BHIA, 35°C,  microaerophilic | This study | Lausanne, Switzerland |
| *Gilliamella apicola* ESL0297 | 4 | BHIA, 35°C,  microaerophilic | This study | Lausanne, Switzerland |
| *Snodgrassella alvi*  wkB2T | 4 | TSA, 35°C,  microaerophilic | Kwong et al, 2012 | New Haven, USA |
| *Snodgrassella alvi*  ESL0304 | 4 | TSA, 35°C,  microaerophilic | This study | Lausanne, Switzerland |
| *Snodgrassella alvi*  ESL0323 | 4 | TSA, 35°C,  microaerophilic | This study | Lausanne, Switzerland |
| *Snodgrassella alvi*  ESL0251 | 4 | TSA, 35°C,  microaerophilic | This study | Lausanne, Switzerland |
| *Snodgrassella alvi*  ESL0897 | 4 | TSA, 35°C,  microaerophilic | This study | Lausanne, Switzerland |

**References:**

1. Kwong WK, Moran NA. Cultivation and characterization of the gut symbionts of honey bees and bumble bees: description of *Snodgrassella alvi* gen. nov., sp. nov., a member of the family *Neisseriaceae* of the *Betaproteobacteria*, and *Gilliamella apicola* gen. nov., sp. nov., a member of *Orbaceae* fam. nov., *Orbales* ord. nov., a sister taxon to the order “*Enterobacteriales*” of the *Gammaproteobacteria*. Int J Syst Evol Microbiol. 2013;63: 2008–2018. doi:10.1099/ijs.0.044875-0.